

EXHIBIT A

Name	Accession	Group	Family	Subfamily	Pseudogene?
A6	SK001	Atypical	AGC		N
ABL	SK006	TK	AD		N
CK1aps3	SK007	CK1	GK		Y
ACK	SK009	TK	ACK		N
ACTR2	SK010	TKL	STKR	Type2	N
ACTR2B	SK011	TKL	STKR	Type2	N
ADCK4	SK013	Atypical	ABCT	ABCT1A	N
Trb1	SK014	CAMK	Thb		N
BRSK2	SK015	CAMK	CAMK1	BRSK	N
Wnk2	SK016	Other	Wnk		N
MARKps27	SK017	CAMK	CAMK1	MARK	Y
AKT1	SK018	AGC	AKT		N
AKT2	SK019	AGC	AKT		N
AKT3	SK020	AGC	AKT		N
CaMK1g	SK021	CAMK	CAMK1		N
MARKps28	SK022	CAMK	CAMK1	MARK	Y
ALK	SK024	TK	Alk		N
ALK1	SK025	TKL	STKR	Type1	N
ALK2	SK026	TKL	STKR	Type1	N
BMPR1A	SK027	TKL	STKR	Type1	N
ALK4	SK028	TKL	STKR	Type1	N
TGFbR1	SK029	TKL	STKR	Type1	N
BMPR1B	SK030	TKL	STKR	Type1	N
AMPKa1	SK032	CAMK	CAMK2	AMPK	N
AMPKa2	SK033	CAMK	CAMK2	AMPK	N
ANPa	SK034	RGC	RGC		N
ANPb	SK035	RGC	RGC		N
ARAF	SK036	TKL	RAF		N
ARG	SK037	TK	Abf		N
ATM	SK038	Atypical	PIKK	ATM	N
ATR	SK039	Atypical	PIKK	ATR	N
AurBps1	SK040	Other	AUR		Y
AurAps1	SK041	Other	AUR		Y
AurAps2	SK042	Other	AUR		Y
AurC	SK043	Other	AUR		N
AXL	SK044	TK	Axl		N
BARK1	SK045	AGC	GRK	BARK	N
BCKDK	SK046	Atypical	PDHK		N
BCR	SK047	Atypical	BCR		N
GCK	SK048	STE	STE20	KHS	N
BLK	SK049	TK	Src		N
BRAF	SK050	TKL	RAF		N
BRK	SK051	TK	Src		N
BTK	SK052	TK	Tec		N
BUBR1	SK053	Other	BUB		N
CDK7	SK055	CMGC	CDK	CDK7	N
CaMK1a	SK056	CAMK	CAMK1		N
CaMK2a	SK057	CAMK	CAMK2		N
CaMK2b	SK058	CAMK	CAMK2		N
CaMK2g	SK060	CAMK	CAMK2		N
CaMK4	SK061	CAMK	CAMK1		N

EphB2	SK128	TK	Eph	
EphB3	SK129	TK	Eph	
EphB4	SK130	TK	Eph	
EphB6	SK132	TK	Eph	
Erk1	SK134	CMGC	MAPK	ERK
Erk2	SK135	CMGC	MAPK	ERK
Erk3	SK136	CMGC	MAPK	ERK
Erk4	SK137	CMGC	MAPK	ERK
FAK	SK138	TK	Fa	
FASTK	SK139	Atypical	FAST	
FER	SK140	TK	Fa	
FERps	SK141	TK	Fa	
FES	SK142	TK	Fes	
FGFR1	SK143	TK	FGFR	
FGFR2	SK144	TK	FGFR	
FGFR3	SK145	TK	FGFR	
FGFR4	SK147	TK	FGFR	
FGR	SK148	TK	Src	
FLT3	SK149	TK	PDGFR	
FLT1	SK150	TK	VEGFR	
FLT4	SK151	TK	VEGFR	
FRAP	SK152	Atypical	PIKK	FRAP
FYN	SK153	TK	Src	
GAK	SK155	Other	NAK	
GPRK4	SK156	AGC	GRK	GRK
GPRK5	SK157	AGC	GRK	GRK
GPRK6	SK158	AGC	GRK	GRK
Trb2	SK160	CANK	Tub	
GSK3A	SK162	CMGC	GSK	
GSK3B	SK163	CMGC	GSK	
HCK	SK164	TK	Src	
HER2/ErbB2	SK166	TK	EGFR	
HER3/ErbB3	SK167	TK	EGFR	
HER4/ErbB4	SK168	TK	EGFR	
HIPK1	SK169	CMGC	DYRK	HIPK
HPK1	SK170	STE	STE20	KHS
HSER	SK171	RGK	RGK	
IGF1R	SK174	TK	InsR	
IKK α	SK175	Other	IKK	
IKK β	SK176	Other	IKK	
ILK	SK177	TKL	MLK	ILK
INSR	SK178	TKL	InsR	
IRAK1	SK179	TKL	IRAK	
IRAK2	SK180	TKL	IRAK	
IRAK3	SK181	TKL	IRAK	
IRE1	SK182	Other	IRE1	
IRR	SK183	TK	InsR	
ITK	SK184	TK	Tec	
JAK1	SK185	TK	JakA	
JAK2	SK186	TK	JakA	
JAK3	SK187	TK	JakA	
JNK1	SK188	CMGC	MAPK	JNK

MUSK	SK247
MYT1	SK248
NDR1	SK249
NEK1	SK250
NEK2	SK251
NEK3	SK252
NIK	SK253
NLK	SK255
NEK4	SK256
IRAK4	SK257
PIK3R4	SK262
ROCK2	SK263
p38a	SK264
p70S6K	SK265
p70S6Kb	SK266
PAK1	SK267
PAK2	SK268
PAK3	SK269
PKCh	SK270
PCTAIRE1	SK271
PCTAIRE2	SK272
PCTAIRE3	SK273
PDGFRa	SK274
PDGFRb	SK275
PDK1	SK276
PDHK1	SK277
PDHK2	SK278
PDHK3	SK279
PDHK4	SK280
PEK	SK281
PFTAIRE1	SK282
PHKg1	SK283
PHKg2	SK284
PIM1	SK291
PIM2	SK292
CDK10	SK294
CDK9	SK295
PITSLRE	SK297
MELK	SK298
MRCKa	SK299
PKACa	SK300
PKACb	SK301
PKACg	SK302
PKCa	SK303
PKCb	SK304
PKCd	SK305
PKCe	SK306
PKCg	SK307
PKCi	SK308
PKD1	SK309
PKCt	SK310
PKCz	SK311

Other	MUSK		N
Other	MYT1		N
AGC	NDR		N
Other	NEK1		N
Other	NEK2		N
Other	NEK3		N
STE	STE20		N
AGC	MAPK	ERK	N
Other	NEK4		N
IKK	IRAK		N
Other	VPS34		N
AGC	DMPK	ROCK	N
AGC	MAPK	p38	N
AGC	RSK	p70	N
AGC	RSK	p70	N
STE	STE20	PAK1	N
STE	STE20	PAK2	N
STE	STE20	PAK3	N
AGC	PKC	Ea	N
AGC	CDK	TAIRE	N
AGC	CDK	TAIRE	N
AGC	CDK	TAIRE	N
TK	PDGFR		N
TK	PDGFR		N
AGC	PKB		N
Atypical	PDHK		N
Atypical	PDHK		N
Atypical	PDHK		N
Atypical	PDHK		N
Other	PEK	PEK	N
AGC	CDK	TAIRE	N
CAMK	PHK		N
CAMK	PHK		N
CAMK	PIM		N
CAMK	PIM		N
AGC	CDK	CDK10	N
AGC	CDK	CDK9	N
AGC	CDK	PITSLRE	N
CAMK	CAMK	MELK	N
AGC	DMPK	GEK	N
AGC	PKA		N
AGC	PKA		N
AGC	PKA		N
AGC	PKC	Alpha	N
AGC	PKC	Alpha	N
AGC	PKC	Delta	N
AGC	PKC	Ea	N
AGC	PKC	Alpha	N
AGC	PKC	Iota	N
CAMK	PKD		N
AGC	PKC	Delta	N
AGC	PKC	Iota	N

STLK6	SK434
TAO3	SK435
TAO1	SK436
ZC1/HGK	SK437
ZC2/TNIK	SK438
ZC3/MINK	SK439
ZC4/NRK	SK440
LATS1	SK441
LATS2	SK442
CDK11	SK443
NIM1	SK449
ULK3	SK450
CLIK1L	SK452
TTBK2	SK453
SCYL1	SK454
MASTL	SK455
PINK1	SK456
ULK4	SK457
MLKL	SK458
DCAMKL3	SK459
SgK493	SK460
PFTAIRE2	SK462
STK33	SK463
PRPK	SK464
Erk7	SK465
CDKL4	SK466
MARKps11	SK467
SCYL3	SK468
YANK3	SK469
NEK9	SK470
TSSK3	SK471
Nuak2	SK472
RSKL2	SK473
TSSK2	SK474
SCYL2	SK475
NEK8	SK476
MARKps26	SK477
BARK2	SK478
NRBP1	SK479
PKD2	SK480
YANK2	SK481
CaMKK2	SK482
CCRK	SK483
CLK4	SK484
GRK7	SK485
DRAK1	SK486
DRAK2	SK487
DYRK3	SK488
PKD3	SK489
GCN2	SK490
SgK494	SK491
SgK495	SK492

STE	STE20	STEK	
STE	STE22	TAO	
STE	STE20	TAO	
STE	STE20	MSN	
STE	STE20	MSN	
STE	STE20	MSN	
STE	STE20	MSN	
AGO	NDR		
AGO	NDR		
CMGC	CDK7	CDK8	
CAMK	CAMK1	NH1	
Other	ILK		
Other	AKF4		
CK1	TBK		
Other	SMYD		
AGO	MAST		
Other	AKF20	TAO	
Other	ILK		
TKL	TKL-Unique		
CAMK	DCAMK1		
Other	Other-Unique		
CMGC	CDK7	TAIRE	
CAMK	CAMK-Unique		
Other	Etk32		
CMGC	MARK	Etk7	
CMGC	BDK1		
CAMK	CAMK1	MARK	
Other	SGY4		
AGO	YANK		
Other	NEK		
CAMK	TSSK		
CAMK	CAMK2	Nbak	
AGO	RSK1		
CAMK	TSSK		
Other	SGY1		
Other	NEK		
CAMK	CAMK1	MARK	
AGO	GRK	BARK	
Other	NRBP		
CAMK	PKD		
AGO	YANK		
Other	CAMKK	Mea	
CMGC	CDK7		
CMGC	CLK	CLK	
CMGC	CDK1	CRK7	
CAMK	DAPK		
CAMK	DAPK		
CMGC	DYRK	Dyrk2	
CAMK	PKD		
Other	PEK	GCN2	
AGO	RSK		
CAMK	CAMK-Unique		

CLIK1	SK493
HH498	SK494
HIPK2	SK495
HRI	SK496
ICK	SK497
IRE2	SK498
PASK	SK499
NDR2	SK500
QSK	SK501
HUNK	SK502
MAP3K6	SK503
ZAK	SK504
MOK	SK505
MPSK1	SK506
MSSK1	SK507
Wnk1	SK508
CDKL3	SK509
PAK5	SK510
PKN3	SK511
A6r	SK512
QIK	SK513
MARK4	SK515
SgK496	SK516
RSKL1	SK517
RSK4	SK518
NRBP2	SK520
SgK071	SK521
SgK384ps	SK522
SGK2	SK523
SSTK	SK524
SGK3	SK525
TTBK1	SK526
DCAMKL2	SK527
Slob	SK528
PBK	SK529
SuRTK106	SK530
TBK1	SK531
TESK2	SK532
Trad	SK533
TSSK4	SK534
VRK3	SK535
caMLCK	SK536
SPEG	SK537
CDK5ps	SK538
GPRK6ps	SK539
MAP2K2ps	SK540
CK1a2	SK541
Erk3ps1	SK542
MARKps18	SK543
KSGCps	SK544
Wee1Bps	SK545
ANKRD3	SK546

Other	NK1		
TKL	MLK	HR498	
CMGC	SYRK	HIPK	
Other	PEK		
CMGC	ROCK		
Other	IRE		
CAMK	CAMK1	PASK	
AGC	NDR		
CAMK	CAMK1	SK	
CAMK	CAMK1	HUNK	
STE	STE11		
TKL	ULK	MLK	
CMGC	ROCK		
Other	NAK		
CMGC	SRPK		
Other	WIC		
CMGC	CDKL		
STE	STE20	PAKB	
AGC	PKA		
Arrestal	AG		
CAMK	CAMK1	QIK	
CAMK	CAMK1	MARK	
Other	Other-Unique		
AGC	RSKL		
AGC	RSK	RSK	
Other	NRBP		
Other	Other-Unique		
Other	PLK		Y
AGC	SGK		N
CAMK	TSSK		N
AGC	SGK		N
GK1	TTEK		N
CAMK	DCAMK1		N
Other	S60		N
Other	TOPIC		N
TK	TK-Unique		N
Other	IKK		N
TKL	LISK	TESK	N
CAMK	Tro		N
CAMK	TSSK		N
GK1	VRK		N
CAMK	MLCK		N
CAMK	Tro		N
CMGC	CDK1	CDK2	Y
AGC	GRC	GRC	Y
STE	STE11		Y
GK1	GK1		N
CMGC	MARK	ERK	Y
CAMK	CAMK1	MARK	Y
RCC	RCC		Y
Other	WEE		Y
TKL	RIPK		N

MARKps16	SK547
MAPKAPKps1	SK549
MARKps19	SK550
MARKps17	SK551
PLK1ps1	SK554
MARKps20	SK555
MARKps15	SK556
PAK2ps	SK557
NEK5	SK558
PHKg1ps1	SK560
MARKps12	SK561
CK1aps1	SK562
TLK1ps	SK563
LIMK2ps	SK564
SAKps	SK565
ARAFps	SK567
CDK8ps	SK570
SgK050ps	SK571
CaMK1d	SK572
MAP3K8	SK573
NEK11	SK574
CHK2ps1	SK575
MARKps09	SK576
MARKps10	SK577
GPRK7	SK578
MARKps13	SK580
SgK069	SK581
HIPK4	SK582
MYO3B	SK583
TSSKps2	SK584
NEK2ps1	SK585
NEK4ps	SK586
MARKps01	SK587
Wnk4	SK588
PRP4ps	SK590
MARKps29	SK591
SgK110	SK592
MARKps22	SK594
PHKg1ps2	SK595
SRPK2ps	SK596
Erk3ps3	SK597
BRSK1	SK598
MARKps30	SK599
TSSKps1	SK600
Obscn	SK601
PSKH2	SK602
CDK7ps	SK603
SIK	SK604
KSR2	SK605
RIOK3	SK606
ADCK3	SK609
RIOK1	SK615

CAMK	CAMK	MARK	Y
CAMK	MAPKAP	MAPKAPK	Y
CAMK	CAMK	MARK	Y
CAMK	CAMKL	MARK	Y
Other	PLK		Y
CAMK	CAMKL	MARK	Y
CAMK	CAMKL	MARK	Y
STE	STE20	PAK	Y
Other	NEK		N
CAMK	PHK		Y
CAMK	CAMKL	MARK	Y
CK1H	CK		Y
Other	TLK		Y
TKL	LSK	CAMK	Y
STE	PAK		Y
TKL	RAF		Y
CMGC	CDK	CDK	Y
RCG	RCG		Y
CAMK	CAMK		N
STE	STE11		N
Other	NEK		N
CAMK	RAB53		Y
CAMK	CAMKL	MARK	Y
CAMK	CAMKL	MARK	Y
AGC	GRK	GRK	N
CAMK	CAMKL	MARK	Y
Other	NKF		N
CMGC	DYRK	HIPK	N
STE	STE20	NinaG	N
CAMK	TSSK		Y
Other	NEK		Y
Other	NEK		Y
CAMK	CAMKL	MARK	Y
Other	Wnk		N
CMGC	DYRK	PRP4	Y
CAMK	CAMKL	MARK	Y
Other	NKE		N
CAMK	CAMKL	MARK	Y
CAMK	PHK		Y
CMGC	SRPK		Y
CMGC	MARK	ERK	Y
CAMK	CAMKL	BRSK	N
CAMK	CAMKL	MARK	Y
CAMK	TSSK		Y
CAMK	Trn		N
CAMK	PSKH		N
CMGC	CDK	CDK7	Y
CAMK	CAMKL	IQIC	N
TKL	RAF		N
Atypical	RIO	RIO3	N
Atypical	ABC1	ABC1-A	N
Atypical	RIO	RIO1	N

YANK1	SK624
SNRK	SK625
EphA10	SK627
SgK196	SK628
Wee1ps1	SK629
MARKps23	SK630
STLK6ps1	SK631
HRlps	SK632
MARKps21	SK633
CK1aps2	SK634
CGDps	SK635
MYO3A	SK636
Erk3ps4	SK637
CK1g2ps	SK639
p70S6Kps2	SK640
Wnk3	SK641
PSKH1ps	SK642
SgK223	SK643
NEK10	SK645
EphA6	SK646
CK1g1	SK647
PLK1ps2	SK648
SgK269	SK649
SBK	SK650
MARKps24	SK651
SgK396	SK652
SgK288	SK658
MRCKps	SK660
KIS	SK661
CaMK1b	SK662
PHKg1ps3	SK663
TBCK	SK664
SMG1	SK665
MARKps02	SK672
BRAFps	SK673
FLT1ps	SK674
skMLCK	SK675
STK33ps	SK680
MAP3K7	SK681
CLK3ps	SK682
MARKps03	SK685
Erk3ps2	SK689
LRRK2	SK690
MLK4	SK691
Haspin	SK692
Trb3	SK694
CRIK	SK695
TLK2ps2	SK696
CaMKK1	SK697
LRRK1	SK698
SgK307	SK699
RYKps	SK700

AGC	YANK		N
CAMK	CAMKL	SNRK	N
TK	Eph		N
Other	Other-Unique		N
Other	WEE		Y
CAMK	CAMKL	MARK	Y
STE	STE20	SILK	Y
Other	GEK		Y
CAMK	CAMKL	MARK	Y
CK1	CK		Y
RGG	RGG		Y
STE	STE20	Ntrac	N
EMGC	MAPK	ERK	Y
CK1	CK		Y
AGC	RSK	AKT	Y
Other	WR		N
CAMK	PSK		Y
Other	NKF3		N
Other	NEK		N
TK	Eph		N
CK1	CK		N
Other	PLK		Y
Other	NKF3		N
Other	NKF1		N
CAMK	CAMKL	MARK	Y
Other	Other-Unique		N
TKL	RIPK		N
AGC	DMPK	GEK	Y
Other	Other-Unique		N
CAMK	CAMKL		N
CAMK	PKK		Y
Other	TBCK		N
Atypical	PKK	SMG	N
CAMK	CAMKL	MARK	Y
TKL	RAF		Y
TK	VEGFR		Y
CAMK	MECK		N
CAMK	CAMK-Unique		Y
STE	STE11		N
EMGC	CLK		Y
CAMK	CAMKL	MARK	Y
EMGC	MAPK	ERK	Y
TKL	LRRK		N
TKL	MLK	MLK	N
Other	Haspin		N
CAMK	Trb3		N
AGC	DMPK		N
Other	TUK		Y
Other	CAMKK	Meta	N
TKL	LRRK		N
Other	NKF3		N
TK	Ryk		Y

MAST4	SK701
CaMK2d	SK703
BIKE	SK704
TSSK1	SK705
MST3ps	SK706
Sgk424	SK707
TYRO3ps	SK708
Sgk085	SK709
CLK2ps	SK710
PKCips	SK711
ADCK2	SK712
MNK1ps	SK713
SCYL2ps	SK714
DAPK3	SK716
MARKps25	SK717
MARKps05	SK720
Wee1B	SK723
MARKps07	SK728
RNAseL	SK729
CHK2ps2	SK731
VRK3ps	SK734
CDK4ps	SK735
MARKps08	SK736
Wee1ps2	SK737
BMPR1Aps1	SK738
BMPR1Aps2	SK739
p70S6Kps1	SK740
MARKps04	SK742
ChaK2	SK746
STLK6-rs	SK747
NEK2ps2	SK749
CK2a1-rs	SK750
TLK2ps1	SK751
A6ps1	SK752
RIOK2	SK753
AlphaK2	SK754
AlphaK3	SK755
G11	SK756
BRD2	SK761
BRD3	SK762
BRD4	SK763
BRDT	SK764
AlphaK1	SK765
A6ps2	SK766
RIOK3ps	SK771
TAF1	SK772
NEK2ps3	SK779
ADCK5	SK780
TAF1L	SK781
H11	SK782
TIF1a	SK783
TIF1b	SK784

AGO	MAST		N
CAMK	CAMK2		N
Other	NAK		N
CAMK	TSSK		N
STE	STE20	YSK	Y
Other	NKF		N
TKL	AM		Y
CAMK	MICK		N
GNGC	GIK		Y
AGO	DGC	GE	Y
Atypical	ABC1	ABC1-C	N
CAMK	NAPK-B/C	MNK	Y
Other	SOY1		Y
CAMK	DAPK		N
CAMK	CAMK1	MARK	Y
CAMK	CAMK1	MARK	Y
Other	WEE		N
CAMK	CAMK1	MARK	Y
Other	Other-Uncate		N
CAMK	RAD53		Y
GKI	MRK		Y
GNGC	GDK	GDK4	Y
CAMK	CAMK1	MARK	Y
Other	WEE		Y
TKL	STKR	Type1	Y
TKL	STKR	Type1	Y
AGO	RSK	p38	Y
CAMK	CAMK1	MARK	Y
Atypical	Alpha	Chak	N
STE	STE20	SLK	R
Other	NEK		Y
Other	CK2		R
Other	TLK		Y
Atypical	A6		Y
Atypical	RIO	RIQ2	N
Atypical	Alpha		N
Atypical	Alpha		N
Atypical	C1		N
Atypical	BRD		N
Atypical	BRD		N
Atypical	BRD		N
Atypical	BRD		N
Atypical	Alpha		N
Atypical	AG		Y
Atypical	RIO	RIO3-4	Y
Atypical	TAF1		N
Other	NEK		Y
Atypical	ABC1	ABC1-B	N
Atypical	TAF1		N
Atypical	HIM		N
Atypical	TIF1		N
Atypical	TIF1A		N

